
Aeronavtika - LOTAR - Dolgotrajno arhiviranje in iskanje digitalne tehnične dokumentacije o izdelkih, kot so podatki o 3D, CAD in PDM - 007. del: Izrazi in reference

Aerospace series - LOTAR - Long Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data - Part 007: Terms and References

Luft- und Raumfahrt - LOTAR - Langzeit-Archivierung und -Bereitstellung digitaler technischer Produktdokumentationen, wie zum Beispiel von 3D-, CAD- und PDM-Daten - Teil 007: Begriffe und Verweisungen

Série aérospatiale - LOTAR - Archivage long terme et récupération des données techniques produits numériques telles que CAD 3D et PDM - Partie 007 : Termes and références

Ta slovenski standard je istoveten z: EN 9300-007:2017

ICS:

01.110	Tehnična dokumentacija za izdelke	Technical product documentation
35.240.30	Uporabniške rešitve IT v informatiki, dokumentiranju in založništvu	IT applications in information, documentation and publishing
49.020	Letala in vesoljska vozila na splošno	Aircraft and space vehicles in general

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EUROPEAN STANDARD

EN 9300-007

NORME EUROPÉENNE

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English Version

Aerospace series - LOTAR - Long Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data - Part 007: Terms and References

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European foreword

This document (EN 9300-007:2017) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2018, and conflicting national standards shall be withdrawn at the latest by April 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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EN 9300-007:2017 (E)**Foreword**

This standard was prepared jointly by AIA, ASD-STAN, PDES Inc and the PROSTEP iViP Association.

The PROSTEP iViP Association is an international non-profit association in Europe. For establishing leadership in IT-based engineering it offers a moderated platform to its nearly 200 members from leading industries, system vendors and research institutions. Its product and process data standardization activities at European and worldwide levels are well known and accepted. The PROSTEP iViP Association sees this standard and the related parts as a milestone of product data technology.

PDES Inc is an international non-profit association in USA. The mission of PDES Inc is to accelerate the development and implementation of ISO 10303, enabling enterprise integration and PLM interoperability for member companies. PDES Inc gathers members from leading manufacturers, national government agencies, PLM vendors and research organizations. PDES Inc. supports this standard as an industry resource to sustain the interoperability of digital product information, ensuring and maintaining authentic longevity throughout their product lifecycle.

Readers of this standard should note that all standards undergo periodic revisions and that any reference made herein to any other standard implies its latest edition, unless otherwise stated.

The Standards will be published under two different standards organizations using different prefixes. ASD-Stan will publish the standard under the number EN 9300-xxx. AIA will publish the standard under the number NAS 9300-xxx. The content in the EN 9300 and NAS 9300 documents will be the same. The differences will be noted in the reference documentation (i.e. for EN 9300 Geometric Dimensioning & Tolerancing will be referenced in ISO 1101 and ISO 16792, and for NAS 9300 the same information will be referenced in ASME Y14.5M and Y 14.41). The document formatting etc, will follow that of the respective editorial rules of ASD-Stan and AIA.

1 Scope

This document defines the common terms, abbreviations and references used through the EN 9300 series of standard parts.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 9300 (all parts), *Aerospace series — LOTAR — LOng Term Archiving and Retrieval of digital technical product documentation such as 3D, CAD and PDM data*

ISO 10303-1:1994, *Industrial automation systems and integration — Product data representation and exchange — Part 1: Overview and fundamental principles*

ISO 10303-11:2003, *Industrial automation systems and integration — Product data representation and exchange — Part 11: Description methods: The EXPRESS language reference manual*

ISO 14721:2003, *Space data and information transfer systems — Open archival information system (OAIS) — Reference model*

3 Terms, definitions and abbreviations

For the purposes of this standard, the terms, definitions and abbreviations given in EN 9300-003 and EN 9300-007 shall apply.

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3.1 Terms

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The following section provides a list of general terms that occur in the EN 9300 documentation, together with a description of what the terms mean. As the meaning of a term may change with context, this section records the usage of those terms in the context of EN 9300, and is provided to enable the correct interpretation of the EN 9300 standard. These descriptions are not otherwise normative.

3.1.1

3D Model Based Definition

MBD

is a set of concepts, processes, and tools that allow the creation of an annotated 3D product definition based on a 3D solid model; the MBD dataset includes all Engineering Intent requirements (including Process Specifications, Geometric Dimensioning and Tolerancing (GD&T), Product and Manufacturing Information (PMI) and other required information). Combined with product lifecycle management (PLM) attributes, a parts list, and general notes, this constitutes an authoritative, single source of master product definition data that does not include or depend upon traditional 2D drawings; the MBD dataset defines complete requirements for a product in its nominal condition as well as permissible limits of variation and other acceptance criteria, providing all the data needed to plan, fabricate, and validate an article of product hardware

3.1.2

access

from the OAIS model, the process of recovering data from the archive

EN 9300-007:2017 (E)**3.1.3****Application Activity Model****AAM**

from STEP, the model of activities that defines the context for a particular application protocol

3.1.4**Application Interpreted Model****AIM**

one of the STEP information models, historically used as the basis for implementation

3.1.5**Application Protocol****AP**

from STEP, one of the major parts of the standard that provides an implementable data exchange in a particular context

3.1.6**Application Reference Model****ARM**

from STEP, an information model that describes the information requirements and constraints of a specific application context

3.1.7**archival storage**

from the OAIS model, the process that ensures data remains available for access

3.1.8**archive**

<1> repository for historical information

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3.1.9**archive**

<2> any repository conforming to the OAIS standard

Note 1 to entry: This is the preferred sense in the LOTAR documentation.

3.1.10**article**

see product, part, item and article

3.1.11**authentication**

<1> ensuring something is what it purports to be

3.1.12**authentication**

<2> in security, ensuring the claims to identity of one party are proven to the satisfaction of another

3.1.13**audit trail**

information collected during the execution of a process that shows what actually occurred

3.1.14 certification

<1> the process of assessing a process or product against some particular set of criteria

3.1.15 certification

<2> the particular process of certifying an aircraft type as being airworthy

Note 1 to entry: For clarity, LOTAR uses the term “Type Certification” in this context.

3.1.16 business application

software creating and generating native Product Models

[SOURCE: see EN 9300-003, 3.2.3]

3.1.17 configuration management

<1> discipline of managing the information relating to a product design, encompassing change management, configuration identification, status accounting and audit

Note 1 to entry: This is the preferred sense in the aircraft industry, and in the EN 9300 documentation.

3.1.18 configuration management

<2> rules relating to the choice and combinations of options used when configuring a particular physical example of a product

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3.1.19 consumer

from OASIS, the user of data taken from an archive (see also designated community)

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3.1.20 cyclic redundancy check

method for checking the integrity of a set of digital data

3.1.21 data object

collection of data treated as a single unit, such as a CAD model or file

3.1.22 dated or undated reference

reference to a version controlled document. In a dated reference, the particular version is identified by its date of issue. In an undated reference, the particular version is the latest released version

3.1.23 description method

(usually formal) method of describing information and its structure

3.1.24 designated community

from OASIS, the community for which the system is designed. In the case of EN 9300, it is the community that will use the information retained in an archive

EN 9300-007:2017 (E)**3.1.25****digital signature**

see electronic signature

3.1.26**disaster recovery**

recovery of the archive in the event of major failure or destruction of the archive

3.1.27**document**

this term covers a family of usages, from a physical paper document, through electronic files which can be thought as representing a document, to synthetic view derived from multiple sources for which the user's conceptual model is that of reading a document; see also EN 9300-003, 5.3.1 "Archiving Product Models vs. Archiving Documents"

3.1.28**domain specific part**

LOTAR parts are either general or domain specific. LOTAR parts 100 upwards are the domain specific parts, and deal with the particularities of each type of data such as 3D CAD; the general parts (1 to 99) apply to all types of data

3.1.29**electronic signature**

defined method to sign an object in electronic environments; it provides means to authenticate the signatory and the signed object in an unambiguous and safe way by attaching to or logically associating data in electronic form to other electronic objects (See EN 9300-005)

3.1.30**essential information**

information that must be preserved, as relating to the key characteristics (qv) of some aircraft component

3.1.31**evidential weight**

from Code of Practice (CoP) for Legal Admissibility, in the case where electronic information is used as evidence in a court case, the degree of reliance that the information is what it purports to be

3.1.32**explicit**

(as in explicit geometry)

where each geometric element is defined in terms of the space it exists in, e.g. a line is defined by its end points; in parametric geometry, the elements are defined through a construction procedure, so that if the parameters change, the element itself changes — e.g. a line is defined as being the normal to a face from its centre

Note 1 to entry: an explicit geometric element may be constructed manually by some procedure, but subsequent changes to the starting entities of the procedure do not change the element

3.1.33**EXPRESS**

from STEP, a formal data modelling language, defined in ISO 10303-11

3.1.34**EXPRESS-G**

from STEP, a diagrammatic form of EXPRESS

3.1.35**Extensible Mark-up Language****XML**

a mark-up language, used to identify fields within a file that can be processed by a web Browser; STEP provides an XML binding for AP's

3.1.36**file**

named collection of data managed as a single unit at the level of a computer operating system

3.1.37**first article inspection**

organization's system shall provide a process for the inspection, verification, and documentation of a representative item from the first production run of a new part, or following any subsequent change that invalidates the previous first article inspection result (source boeing)

3.1.38**fixity information**

ancillary information that show a particular set of information is unchanged

3.1.39**Geometric Dimensioning and Tolerancing****GD&T**

definition of the physical dimensions of a component and the allowable variation on those dimensions

3.1.40**Hyper Text Mark-up Language****HTML**

mark-up language, used to indicate display parameters within a file that can be processed by a Web Browser

3.1.41**IDEFO**

modelling methodology for describing activities and the relations between them

3.1.42**ingest**

from the OAIS model, the process of transferring data to the archive

3.1.43**item**

see product, part, item and article

3.1.44**Joint Aviation Requirements****JAR**

prefix for standards and related documents produced by the Joint Aviation Authorities

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